

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently amended) A method for measuring internal pressure of a body comprising:

aligning with the body a longitudinal axis of a light collecting and delivering device having a wall and an axially extending lumen;

illuminating the body by way of the light collecting and delivering device and applying thereto a pneumatic pulse capable of substantially flattening the body, the illuminating light beam and the pneumatic pulse passing axially through the lumen,

guiding by total internal reflection through the wall of the light collecting and delivering device light reflected from the body to a detector when the body is in a non-flattened configuration, at least a portion of the light when the body is in a flattened configuration being reflected into the lumen and prevented from reaching the detector; and

matching a time-related feature associated with said changes in the light intensity of light reflected to the detector with a given pressure value related to mechanical disturbance, wherein said time related-feature is at least one of: a time length of said pneumatic pulse, a time interval in which said changes of said light intensity measured are detected, and a slope of said changes of said light intensity measured.

Claim 2. (Previously presented) The method for measuring internal pressure of a body as in claim 1, wherein said time-related feature is a slope of said changes of said light intensity measured.

Claim 3. (Previously presented) The method for measuring internal pressure of a body as in claim 1, wherein said body is an eye and the aligning comprises centering a reticule image in a field of view of the eye.

Claim 4. (Previously presented) The method for measuring internal pressure of a body as in claim 1, wherein said light collecting and delivering device is a unitary light projecting and collecting device tube (LPCT).

Claim 5 (Canceled).

Claim 6. (Previously Presented) A device for measuring internal pressure of a deformable body, said device comprising:

- a light collecting and delivering device formed of a wall surrounding a lumen, the wall having an end surface for receiving light reflected by the body, the light being guided to travel along the wall by total internal reflection within the wall,

- an illuminating beam source for providing a light beam to the body, the light beam passing through the lumen of the light collecting and delivering device;

- an air source for providing a pneumatic pulse of compressed air to the body by way of the lumen of the light collecting and delivering device to flatten a convex surface of the body;

- a light detector mounted to receive light reflected by the body and passing through the wall of the light collecting and delivering device when the body is in a non-flattened configuration;

- ; and

- a control unit connected to the detector to provide a measure of the internal pressure of the body.

Claim 7. (Previously presented) The device as in claim 6, wherein said deformable body is an eye and the device further comprises a reticule for projecting an image thereof on the eye.

Claim 8. (Canceled)

Claim 9. (Canceled)

Claim 10. (Previously presented) The device as in claim 6, further comprising a mounting for securing to a head of a user.

Claim 11. (Previously presented) The device as in claim 6, wherein:

- the control unit is adapted to match a time-related feature associated with changes in the light intensity of light reflected to the detector with a given pressure value related to mechanical disturbance; and

the time related-feature is at least one of: a time length of said pneumatic pulse, a time interval in which said changes of said light intensity measured are detected, and a slope of said changes of said light intensity measured.